

How to measure a million end users

- be www.google.net

Or

- Get your code run on millions of machines



Placement

At low CPM, the advertising network needs to present unique, new eyeballs to harvest impressions and take your money.

- Therefore, a ‘good’ advertising network provides fresh crop of unique clients per day
- Pay for placement of ads, embed measurement in flashcode.
- Result is lots of Unique IP addresses to measure.



What are we finding?

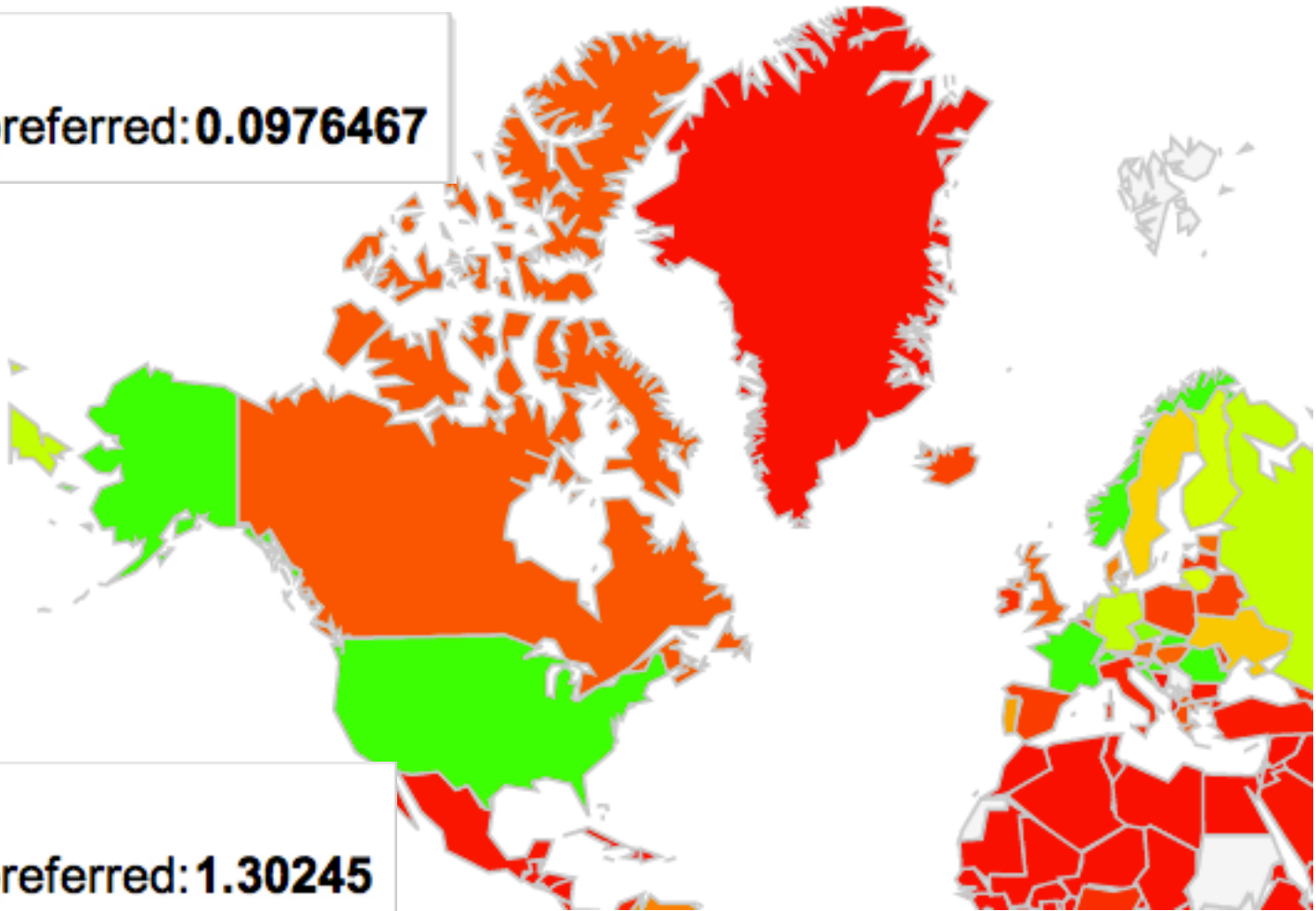
- http://labs.apnic.net/ipv6_measurement
 - Breakdowns by ASN, Economy, Region, Organisation
- 125+ economies provide >200 samples/interval consistently in weeklies
- 150+ at monthlies.
- 2400 ASN provide graphable data
- Over 35,000 ASN seen during the last year.



Google visualization API

CA

IPv6 preferred: **0.0976467**



US

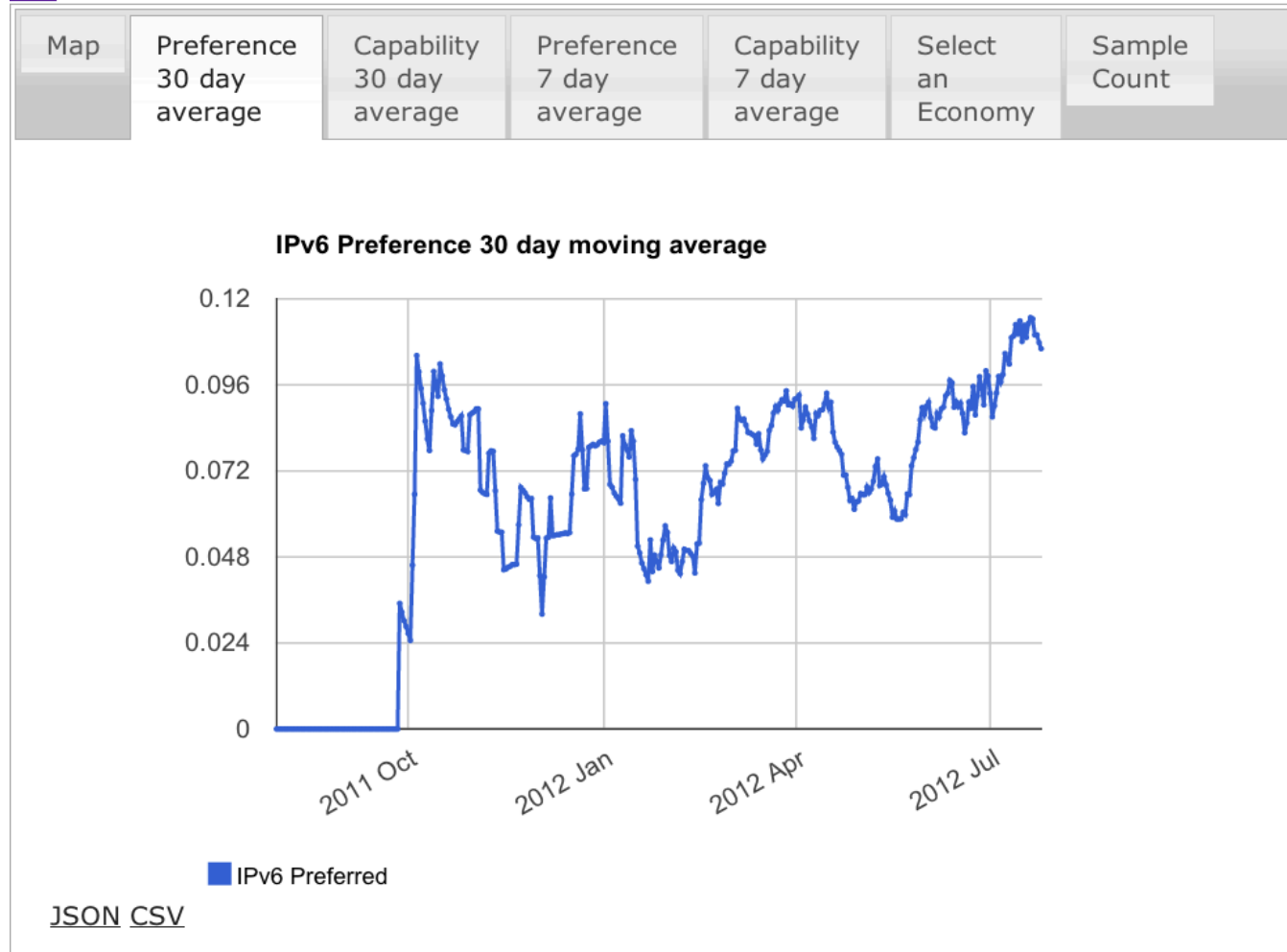
IPv6 preferred: **1.30245**



Google visualization API

IPv6 measurements for Canada

[back](#)



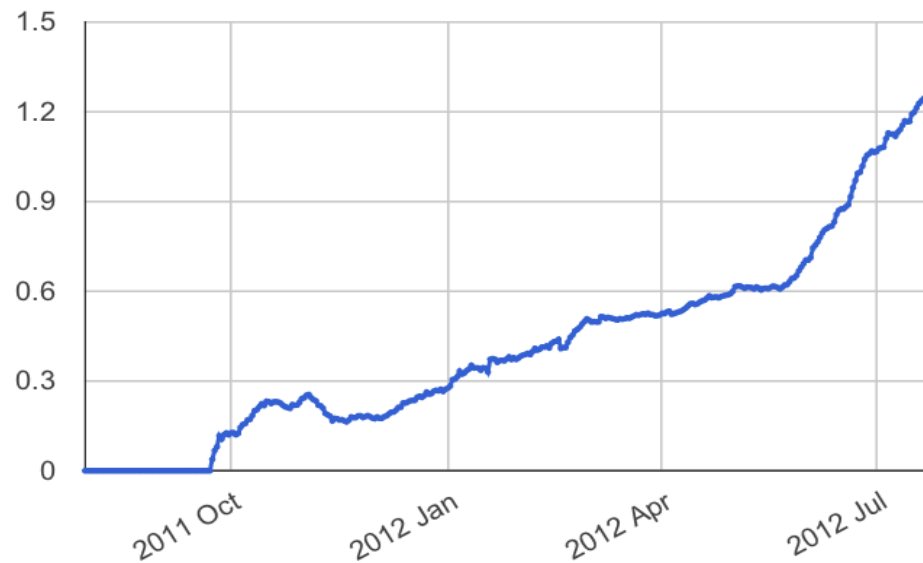
Google visualization API

IPv6 measurements for the United States of America

[back](#)

Map	Preference 30 day average	Capability 30 day average	Preference 7 day average	Capability 7 day average	Select an Economy	Sample Count
-----	---------------------------------	---------------------------------	--------------------------------	--------------------------------	-------------------------	-----------------

IPv6 Preference 30 day moving average



■ IPv6 Preferred

[JSON](#) [CSV](#)



IPv6 Users by Country

Date: 19 Jul 2012

<http://labs.apnic.net/dists/v6dcc.html>

Index	ISO-3166 Code	Internet Users	V6 Use ratio	V6 Users (Est)	Population	Country
1	RO	8666554	8.12%	703724	22108557	Romania
2	FR	49989738	4.03%	2014586	64753547	France
3	LU	465560	2.80%	13035	509366	Luxembourg
4	EU	0	2.72%	0	0	European Union
5	JP	100944611	2.00%	2018892	126180764	Japan
6	US	247741029	1.19%	2948118	316399782	United States of America
7	NO	4576107	0.99%	45303	4707930	Norway
8	HR	2652967	0.78%	20693	4481364	Croatia
9	SI	1418146	0.78%	11061	1997389	Slovenia
10	CH	6447874	0.75%	48359	7657808	Switzerland
11	SK	4344024	0.63%	27367	5484879	Slovakia
12	KH	474036	0.61%	2891	15291489	Cambodia
13	FI	4663623	0.58%	27049	5263683	Finland
14	CZ	7216705	0.54%	38970	10178710	Czech Republic
15	CN	515903270	0.45%	2321564	1343498100	China
16	LT	2097360	0.45%	9438	3524976	Lithuania
17	NC	80195	0.42%	336	235178	New Caledonia
18	RU	61155099	0.40%	244620	138047629	Russian Federation
19	DE	67964360	0.40%	271857	82181814	Germany
20	SE	8457437	0.38%	32138	9103808	Sweden



IPv6 Users by Country

Date: 19 Jul 2012

<http://labs.apnic.net/dists/v6dcc.html>

Index	ISO-3166 Code	Internet Users	V6 Use ratio	V6 Users (Est) ▲	Population	Country
6	US	247741029	1.19%	2948118	316399782	United States of America
15	CN	515903270	0.45%	2321564	1343498100	China
5	JP	100944611	2.00%	2018892	126180764	Japan
2	FR	49989738	4.03%	2014586	64753547	France
1	RO	8666554	8.12%	703724	22108557	Romania
19	DE	67964360	0.40%	271857	82181814	Germany
18	RU	61155099	0.40%	244620	138047629	Russian Federation
29	ID	55651780	0.16%	89042	248445448	Indonesia
21	NL	15140919	0.38%	57535	16917228	Netherlands
23	AU	19784410	0.28%	55396	22031637	Australia
53	BR	86900426	0.06%	52140	205925182	Brazil
22	TW	16186831	0.31%	50179	23124045	Taiwan
10	CH	6447874	0.75%	48359	7657808	Switzerland
43	GB	51836265	0.09%	46652	61636463	United Kingdom of Great Britain and Northern Ireland
7	NO	4576107	0.99%	45303	4707930	Norway
14	CZ	7216705	0.54%	38970	10178710	Czech Republic
20	SE	8457437	0.38%	32138	9103808	Sweden
27	UA	15200270	0.20%	30400	44838557	Ukraine
25	VE	11144274	0.27%	30089	28071220	Venezuela
39	CA	27999585	0.10%	27999	34313217	Canada



IPv6 measurements for World IPv6 Event 2012

<http://labs.apnic.net/ipv6-measurement/W6L>

Economy	Participant	ASNs	v6pref ▼	3month avg hits/month	notes
RO	RCS & RDS	8708	20.23%	31474	
JP	KDDI	2516	17.20%	10328	
FR	Free	12322	16.02%	19169	
TH	UniNet	4621	8.73%	508	
NL	XS4ALL	3265	6.76%	1332	
US	Verizon Wireless	6167, 22394	5.95%	652	
LU	EPT Luxembourg	6661	5.49%	729	
US	ATT	6389, 7018, 7132	4.95%	16710	
MY	JARING Communications Sdn Bhd	2042	4.48%	438	
GB	Janet	786	3.52%	2476	
AU	Internode	4739	2.58%	515	
EU	GARR	137	1.47%	545	
US	Comcast	7922, 33287, 33491, 33650, 33651, 33652, 33657,	1.33%	22452	



A word for our sponsors

- Thanks to
 - the Internet Society
 - Google
 - ISC
 - RIPE NCC
- For funding, platform support, collaboration
- Don't Click on the ad if you see it! (costs more)

